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ABSTRACT

A great deal of money and energy is going into the quest for environmental quality. The purpose of this paper is to point out to counselors some of the job opportunities available in the fields of conservation and recreation. The variety of programs directed to improving the condition of man, offer many opportunities to those who wish to become involved professionally in a direct manner. Advantages of careers in conservation and outdoor recreation include: (1) helping to solve challenging natural resource problems, (2) enjoyment of ones work in a profession where dedication is standard equipment, (3) working with people, and (4) seeing some accomplishment in making the world a better place to live. Disadvantages include: (1) lower pay, (2) necessity of passing the civil service examination, and (3) the need for some specialized education. The need for people as resource or conservation aides is great. Possibilities for advancement are good. A list of field work for aides is included. Similarly there is a need for outdoor recreation aides. Much study and effort is being made to incorporate subprofessionals into these fields as the need for them is growing quickly. (KJ)

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VOCATIONAL OPPORTUNITIES FOR THE TECHNICAL TRAINED INDIVIDUAL IN CONSERVATION AND OUTDOOR EDUCATION

by

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for

Summer Workshop on Vocational Guidance
Ferris State College
Big Rapids, Michigan

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Introduction:

It was the poet, Walt Whitman, a century ago who wrote about Americans, that we were a nation of early risers and lovers of seasons and sunsets. I am glad to see that Dr. Griffin has a workshop of early risers and I hope that they love seasons and sunsets as well. Unless we have people who are concerned about conservation, about outdoor recreation, about beautiful cities, and unless they are early risers and work hard and long hours, we are not going to win the fight.

I am reminded of a story that I heard a number of years ago in Chicago during a conference address. It is about an old farmer who was visiting a former neighbor who had discovered oil on his property. After his new found wealth this friend began to recreate the entire landscape of his ranch. He had moved mountains, created lakes and streams, moved trees and boulders and in general built an entirely new environment. The old farmer looked upon all this with profound amazement and wonderment. The friend turned to his friend and asked the proverbial question, "What do you think of all this?" The old farmer after some deliberation replied: "I am thinking what God could do if he had your money."

A great deal of money and energy is going into the quest for environmental quality. There are a variety of programs directed to improving the condition of man and these programs offered many opportunities to those individuals who wish to become involved professionally in a direct manner.

The poet Robert Frost once wrote, "What makes a nation in the beginning is a good piece of real estate." Since the foundation of our country, the American people have been particularly blessed with a "good piece of real estate" containing a wealth of natural resources. Although the United States is a young country in terms of time, it is growing old too quickly as a result of prolonged and excessive resource exploitation and misuse.

History reveals to us that mismanagement of human and natural resources has been the cause of the downfall of many past civilizations. Despite this evidence we are still victim to the folly of not learning from past experience. The Machiavellian techniques employed in resource exploitation still exist. The clear-cut-and-get-out forestry practices of the past have given way to the current demands for increases in allowable cut. Poor farming practices and overgrazing continue while soil erosion drains away the fertility of the land.

The ever-continuing chemical pollution of those essential ingredients of organic life - namely that of air, water, and soil; the failure to develop and implement a master plan of development for our urban areas, suburbs, rural areas, and transportation systems; the lack of ability of resource personnel to give adequate consideration to the aesthetic, the intangible and spiritual values; have all contributed to the environmental conservation gap.

In our persistent search for expedient economic progress equated in terms of Wall Street averages, the volume of imports and exports, the Gross National Product, our society has not achieved the development of an adequatic environmental awareness or ethic.

America long known for the most democratic government in the world has by this very nature placed the blame for what is wrong with the environment onto the individuals who live and work within this environment. President John F. Kennedy once stated, "Our greatness rests on the gift of geography that is the United States, but what is important for tomorrow is what the people of America do with their conservation legacy.

Vice Admiral Hyman G. Rickover has stated, "We have been brought to this critical condition by the scientific - technological revolution and can extricate ourselves only by a change of direction in thought and action so drastic it would rate as counterrevolutionary."

Within the last decade we have come to realize that conservation is more than individual struggles against floods, erosion, forest fires, fights for parks, open space and natural beauty; more than crusades to save endangered wildlife and wilderness areas; more than titanic battles to clean up air, noise and water pollution. Conservation is all of these, however, the fundamental purpose behind all of these objectives is to improve and maintain the total environment in which all life exists.

You who are planning for the future, charting the lifework of others or helping those whom you may be called upon to advise, may wish to consider careers in conservation and outdoor recreation. There are opportunities for capable, responsible, properly trained young people in work concerned with our natural resources. It is useful work. It can be pleasant and rewarding. To point out some of the major fields in which these opportunities lie and to indicate what kind of preparation and education may be needed are the purposes of this presentation.

Advantages of Careers in Conservation and Outdoor Recreation

One popular image of a person who selects a career in outdoor recreation or conservation is that of a square-jawed green-garbed figure riding his faithful painted pony down the trail of lonesome pine beyond the blue horizon somewhere out in the West. To be sure, a few jobs do have a place for this TV prototype. But mostly a career in resource management involves more hard work than glamour.

As a terse generality, if your students don't like to get their hands dirty and get their feet wet they should not choose a career involving the out-of-doors. No matter what career one chooses, one will find certain advantages and disadvantages, resource-use and outdoor recreation are no exceptions. Before one plans to seriously enter these fields one should know something about both the advantages and disadvantages.

To most outdoor professionals, a major attraction of the work is the opportunity to help solve challenging natural resource problems with a group of dedicated colleagues. To most of them, outdoor leisure-use and resource use is a way of life - more than just a profession. They are not in the field for monetary reward, or they would not be in it. They have chosen the field because they love the outdoors and all that goes with it, well enough to accept the bitter with the sweet and make a life's work of it.

Another advantage is that one will probably love his work in a profession where dedication is standard equipment. The advantage of spending a lifetime doing work one enjoys just cannot be calculated. Thoreau held that "most men lead lives of quiet desperation." This statement would apply to few people in outdoor leisure- use or natural resource-use careers. They are seldom bored with their jobs because each day offers a new challenge. In fact, many outdoor recreation or conservation problems have not even been defined, to say nothing of being solved. And here is still another advantage: Resource-use management including outdoor recreation and conservation is a field that is still growing. The profession is a young one.

The idealist can find many reasons for choosing outdoor recreation or conservation as a career. One for example, is the challenge of working with people, influencing their actions and decisions. Two, in most outdoor professions, one can go to bed at night with the warm realization that the day's work has made the world at least a little better place in which to live. William James once remarked that "without the sense of a goal, individual activity ceases to have any meaning." When the purpose is to contour plow hills to prevent soil erosion; to clean up a river's pollution; to start a new forest, to plant a food plot for wildlife; to protect birds and fish and fur-bearers for future generations - then the attainment of these goals certainly does have a deep and lasting meaning to the individual. In fact, entering the conservation field is to some a little like putting on the cloth. There is no doubt that many have become outdoor career persons, both amateur and professional, because they are vitally concerned about the future physical and spiritual wellbeing of mankind.

The rewards of working in conservation must, indeed, be immeasurable. For not only do few individuals leave the profession once they enter it, they encourage their children to follow in their footsteps. When one considers that part of the American dream is to make life better for one's children than it was for them, this fact takes on even deeper significance. Perhaps the richness of the rewards of choosing natural resource use, leisure use and conservation as a career can best be seen in the enthusiasm still bubbling in many veterans of fifty years in the profession. The advantages have permanence too. When you pick the outdoors as a "plant" to work in, you may be reasonably certain that no efficiency expert is going to redesign your place of business and erect another that has no windows.

Disadvantages of Careers in Conservation and Outdoor Recreation

But let's examine for a moment the other side of the coin. One disadvantage to the conservationist is a shortage of competition for his service. This simply means that conservationists are certainly not in the highest salary brackets when compared to other professions involving the same amount of background and training.

Before we go any further we should face the facts: If a young person is seriously considering a career in outdoor recreation or natural resource field he needs to be aware of a few realities concerning his basic educational needs. Most good jobs with governmental agencies will require passing a civil service examination. In order to qualify for civil service examinations one must have technical training, an associate degree from a two year college or a four year college degree. The jobs in outdoor recreation or the natural resource field for which a person could qualify for without technical training are usually classified as "laborer". These are the pay by the day, and are often temporary or seasonal. Included in this category are fire tower observer, fish hatchery worker, farm pond survey helper, or similar occupation where extra help is needed during seasonal periods of heavy work load. These are the jobs a person will

get (if they get one) by answering the rash of ads which appear in outdoor magazines where a person supposedly subscribes to a course in conservation, shells out his muskrat trapping money and becomes a conservationist overnight. We should not fool ourselves; there is no short cut to knowledge. And there is no substitute for study.

Generally the more education one gets, the better job he will qualify for, the more responsibility he will ultimately assume, and the better he will be paid. The day is gone, with extremely rare exceptions, when the office boy (or day laborer) can work his way up to a top post with only practical experience and no technical training. Every successful career man of this kind has educated himself to the same degree the technically trained man or college man has, but far more laboriously and painfully.

The most helpful subjects one can take to prepare for a technical school or college course and ultimate career in any branch of resource use are mathematics and science, especially physics, chemistry and biology. Courses in written and oral expression are also especially helpful. So is anything dealing with business administration, such as typing, bookkeeping, accounting. The more one takes of these subjects, the easier will be the adjustment to later work in continuing education.

A few specialized types of education in photography, science, mathematics, journalism, in education itself - may lead one into the conservation field. For that matter, all types of jobs are available in conservation. Mailmen and mechanics attorneys and architects, radio operators and rod men, engineers, stenographers, teachers, blacksmiths, and a variety of professionals too numerous to list may arrive by one road or another at conservation as a career.

Jobs are few in the conservation field - even temporary jobs - unless the applicant possesses at least the equivalent of a high school education. Heavy equipment operators are in a class all by themselves. To get to be boss of a woods crew running big equipment such as earth movers, technical training in mechanical engineering would be of incalculable value. But what is equally needed is a bushel of common sense, a bale of mechanical aptitude and a barn full of experience. Men like this are not only in demand, they are indispensable in many fields of resource use. And they don't need a college education any more than a beaver needs a bulldozer.

The Need for Resource or Conservation Aides

As in other segments of professional endeavors there is a need for technical aide personnel trained in various areas of natural resources. There is an increasing demand not only for specialists who perform highly skilled services, but also for individuals who in addition to their specialized technical training realize the relation of their particular field to other fields of natural resources and to the human consequences of their professional activity.

No conservation field personnel can be complete without the assistants that work with wildlife managers, fisheries crews, biologists, geologists, soil scientists, refuge managers and others.

Such aides are not charged directly with enforcement, management or research, but can assist in all three areas.

The work of such aides is usually very hard, however, it is interesting and widely diversified. It should be noted that because of their training they are not common laborers. A great deal depends upon their judgement, skill and willingness to work and learn. These technical aides are actually extensions of

the field scientists, refuge managers, enforcement officers and work side by side with those men. This is a vital part of any local, state or national conservation program. When the situation warrants it, they may do anything from fighting fires, rearing trout or collecting specimens underwater for oceanographers.

Of all the natural resource management jobs, none are more concentrated in the out-of-doors than the work of these aides. The college trained wildlife manager, biologist and enforcement officer all have various amounts of desk-bound chores as well as commitments to public relations programs. However, the natural resource aide spends his work year in the out-of-doors during all seasons. His sole responsibility is to the field aspect of his particular segment of conservation emphasis and his public contact is slight and often transient. The natural resource aide's responsibilities can be widely varied and is usually quite interesting. Some of the field work that might possibly be included in a natural resource aide's work load are as follows:

1. Live trapping animals for placement in other areas.
2. Aiding wildlife managers and biologists in game surveys.
3. Working at deer checking stations during the hunting season.
4. Building duck blinds on state hunting areas.
5. Managing state wildlife areas.
6. Working on state game farms.
7. Aiding biologists in trapping and banding ducks.
8. Aiding wildlife manager in trapping game fowl for breeding experiments.
9. Fire fighting in state forests and game areas.
10. Working as production assistants on state wildlife movies.
11. Assisting in state trapping programs and in trapping schools.
12. Collecting field specimens such as soil samples for the field and laboratory scientist.

Such jobs as these are usually stepping stones to higher positions and provide experience and opportunity to high school graduates who are interested in natural resource careers. A sharp and sincere interest in the outdoors is an important prerequisite. The conservation or natural resource aide must be a healthy individual and capable of sustained activity in rough country or in foul weather. A high school diploma may not be necessary, but the fastest promotions and better jobs will go to the young person with the broadest education.

In most cases job training for the natural resource or conservation aide is a broad informal program. However, there are emerging specialized training programs for aides such as the Oceanographic Aide Program in Washington, D.C. This program utilizes a ship as a classroom and prepares young people to assist oceanographers or marine scientists in a variety of ways.

Practical field experience should be sought at every opportunity. The conservation aide must know many things, but it is almost a certainty that one of his main duties will be the use and maintenance of farm machinery, motor vehicles, manual and power tools, boats and motors. The conservation aide will probably need to know how to set corner posts, stretch fences, use dynamite, care for tents, stitch leather, and handle trapped beavers. In so many words, he must know the practical, workaday side of the outdoor world as few other men do. The quicker he masters these skills, the greater his chance for advancement.

The Need for Outdoor Recreation Aides

A natural-resource-management field that has grown amazingly during the past century is that involving park and outdoor recreation development.

Our nation in the early days was chiefly agricultural and the farmer's work left little time for recreation. Very few large cities dotted our new nation. People who did not live on farms lived in villages. Both farms and villages were surrounded with all the natural environment their inhabitants could desire.

The pendulum swung and circumstances changed greatly. The industrial revolution created new jobs, luring workers from farms into the rapidly growing cities. Railroads, rapid settlement of wild lands, and the expansion of cities suggested to farsighted leaders that lands with outdoor recreation and inspirational values should be set aside to the future enjoyment of the people.

Careers in park and recreation development came along slowly. In Europe parks for recreational purpose belonged mostly to nobility. Forests in these parks were managed by foresters, and wildlife was under the protection and management of gamekeepers.

Even though Yellowstone Park in the United States was established in 1872, the National Park Service was not authorized until 1916. Yosemite, Crater Lake, and Yellowstone national parks were first protected by Army Officers and enlisted men. Superintendents of other parks who were civilians who were politically appointed. Army scouts who were civilians qualified as the first park rangers because of their woodcraft and mountain skills.

The early years of the National Park Service did not witness their potential for outdoor recreation activities by the people. Not many young men desired to become park rangers in those days.

However a rapid change occurred and many people visited the national parks after 1922. Today millions of people visit national, state and local parks, forests, and monuments. Consequently the opportunities for professional employment increased.

Outdoor recreation is currently assuming an important position among our country's concerns with the quality of environment and social life. As a consequence, we are witnessing rapid change in the foremost programs of outdoor recreation and in their respective governing policies. An old viewpoint looked upon outdoor recreation as an important by-product of conservation. This viewpoint involving stewardship of the economic resources is being replaced by a school of thought that holds recreation to be of primemost importance as public purpose and stresses the development of the recources for recreational utilization. These concepts now emerging have a history that is both noteworthy and long. A landmark of signal importance is the Outdoor Recreation Resources Review Commission which published its report in 1962. This report reviews the trends and development toward recognizing the value of recreation as a primary public purpose. The report also provides insight and foresight change in the major programs of outdoor recreation and in the policies governing those programs. A traditional viewpoint that viewed outdoor recreation as a valuable by-product of conservation policies - representing the idea of a stewardship of potentially productive economic resources - is being superseded by a philosophy that holds recreation to be a primary public purpose and would preserve and develop such resources for recreational use.

Dr. Edward C. Crafts, former Director of the Bureau of Outdoor Recreation, summarizes the main thrusts of the Commission's report as follows: (1) Recreation should be in the service of people; (2) it should be more closely allied to the highly populated urban areas; (3) there is need for much greater action and responsibility by state and local governments and private business; (4) there is need for better coordination among the numerous federal agencies; and (5) the most urgent need is to preserve and place under effective public or private control land and water resources that will he needed in the future for recreational purposes.

In a series of subsequent far-reaching actions, the federal government has established agencies and programs that are now translating a philosophy of recreation into concrete activities and operations on many fronts. The Bureau of Sports Fisheries and Wildlife was established to replace a number of loosely coordinated agencies, and the Fish and Wildlife Coordination Act provides for special recreational facilities on National Wildlife Refuges and at National Fish Hatcheries. The recreational and the resource-conservation aspects of national forestlands were given equal priority under the Multiple-Use Sustained-Yield Act; and, as a direct consequence of the recommendation of the Outdoor Recreation Resources Review Commission, the Bureau of Outdoor Recreation was created. Moreover, two new instruments of policy formulation were created: The President's Council on Recreation and Natural Beauty at the Cabinet Level, and its parallel, the Citizen's Advisory Committee on Recreation and Natural Beauty. A steady stream of resources and conservation and preservation legislation has been enacted by Congress; it is estimated that the annual expenditure of the federal government for acquisition and capitol improvements of outdoor recreation resources alone is now about 800 million dollars.

Supportive Assistance by Subprofessional Trained Personnel

As in any profession, the personnel, with professional education need the assistance of persons with a subprofessional education, commonly referred to as technicians. Although this need has not been particularly stressed in the field of outdoor recreation, it is now receiving a great deal of recognition. Nearly 50 junior colleges and community colleges now offer 2-year technical programs. In 1967, associate degrees were given to 306 park and recreation leaders. These individuals now serve in positions such as recreation program leaders, activity specialists, and skilled and semi-skilled park personnel.

This is a need for definition and clarification of the kinds of roles and activities that recreation technicians can best assume. There is also a need for the development of educational programs which can best prepare individuals to meet the responsibilities of a recreation technician position. Because of these needs a study is underway and is being conducted by the National Recreation and Park Association for the Office of Education. The purpose of the study is to develop a curriculum guide for junior college training of recreation leaders who would be able to assume the role of recreation technician.

The study has discovered that there is significant dates attesting the need for technicians in the field of recreation and park services to serve in a wide variety of activities for which a high degree of skill is required not necessarily a four-year professional education.

A great deal of the work is now being done by individuals holding a baccalaurate or masters degree. Exploration into the feasibility of employing individuals with associate degrees to perform some of these tasks is now being done. The National Park Service, for example, is investigating the possibility of utilizing sub-professionals to perform some of the activities currently being performed by full-professionals. There is still the question as to whether the great increase in professional personnel projected to be essential will actually be needed if an adequate supply of prepared technicians is available. The National Recreation and Park Association estimates the supply of recreation and park graduates from 2-year programs will be increased 12,126 individuals in 1980.

The Department of the Interior's Bureau of Outdoor Recreation in their publication entitled Education and Outdoor Recreation, prepared by Dr. Samuel T. Dana, Deam Emeritus of the School of Natural Resources of the University of Michigan, stated that, "more adequate provision be made for the education of technicians through 2-year programs of instruction at junior colleges, community colleges, and other appropriate institutions, such as ranger schools. Experience indicates the need for a much larger force of persons with adequate technical training to work with the professionals. Accreditation of such programs is desirable and should be handled by the same agencies that handle the accreditation of professional programs."

The young person who is interested in outdoor recreation as a field has a wide field to consider. With it, however, he has a responsibility to make certain that he really wants to qualify himself in the outdoor recreation profession and devote his life to it. This does not mean that he cannot make changes as his career advances. He must, however, realize that outdoor recreation is a career in the public interest, no matter whether it be in public or private employ. Outdoor Recreation requires individuals who will serve in the interest of good stewardship of the land and who will strive to insure that many of the values of outdoor recreation sites and facilities remain available for people's use.

Conclusion

Theodore Roosevelt made conservation and outdoor recreation more than a political issue in America. He made it a moral imperative. These words were spoken by Lyndon B. Johnson, former President of the United States, during a message to Congress concerning conservation. The former President was concerned about the despoilation of our natural resources and landscape.

Theodore Roosevelt also a past President more than a half a century ago, sounded this warning: "To skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them amplified and developed."

However, the conservation problems Theodore Roosevelt observed are dwarfed by the new ones of our day.

An unfolding technology has increased our economic strength and added many conveniences in our lives. This same technology carries danger to man with it. From the giant smoke stacks of industry and from the exhausts of motors and machines, over 130 million tons of carbon particles, sulpheric particles, etc., descend downward to the people and shroud the Nation's cities each year.

Cities, towns, factories, stockyards, individual residences and enterprises pollute our rivers, streams and lakes with waste material and endanger the waters we use for survival and recreation. The refuse of our civilization covers our landscape and destroys recreational areas.

Stanley Casson, a noted British anthropologist, in his book entitled, Progress and Catastrophe, stated, "When man's practical inventiveness runs ahead of his moral consciousness and social obligation then he ultimately faces disaster." These words appeared in 1938 and are still appropriate for our times.

Technology is not something which happens once and then stands still. It grows and develops at an alarming rate. All efforts to keep it in harmony with human values should be intensified and accelerated. Vice-Admiral Hyman G. Rickover has stated, "only when viewed humanistically - in other words, as a means to human ends - can technology be made to produce maximum benefit and do minimum harm to human beings and to the values that make for civilized living.

In view of all this conservation and outdoor recreation has become of paramount importance in man's survival on this spaceship called earth.

The need for qualified personnel to perform professionally in service occupations is increasing at a rapid rate. There is a steadily growing amount of leisure time at the disposal of the American people and there is also a strong tendency to devote an increasingly large share of this time to outdoor recreation. As the demand for outdoor recreation is increased so is the recreational use of land and water with subsequent problems in erosion control, land protection, water quality, air quality, and so on.

I should like to close my remarks today by emphasizing the concluding part of President Johnson's message of February 1965 on natural beauty and outdoor recreation to Congress.

President Johnson spoke of the right of Americans to have clean water and of the duty not to pollute it. He also spoke of the right to clean air and of the duty not to pollute it. President Johnson presented a stirring challenge to all Americans. He called for a new conservation, a creative conservation of restoration and innovation. He said that this new conservation must be concerned with the relation between man and the natural world and that beauty and man's opportunity to enjoy it must assume a major role.

I hope you are asking yourselves: how can I best participate as a guidance counselor in the quest for environmental quality? How can I encourage more young people to become professionally engaged in the conservation and outdoor recreation fields? We recognize that the effectiveness of these resource-oriented services is and will be, determined to a great degree by how many or how few interested persons, groups, communities and areas are aware of their existence - and their potential.

Like you, I believe in the worth of what we are doing. I believe conservation and outdoor recreation offers a truly exciting opportunity, not only to supply a service to all Americans - urban and rural - but to contribute markedly to the revitalization of the human spirit. And this I can emphasize is vastly important to the whole of American society. I am encouraged by having the opportunity to

speak to a group such as this. There is a new awareness in the land. The people are making it clear that they want and they are willing to pay for a beautiful America - an inspiring and invigorating America.

The need that exists now and will exist triple-fold by the end of this century is the challenge before us. Technically-trained personnel can contribute greatly to meeting the challenge of quality environment for all.

Thank you.